Ladybird Guide to Spacecraft Communications: Team Challenge

Presented by

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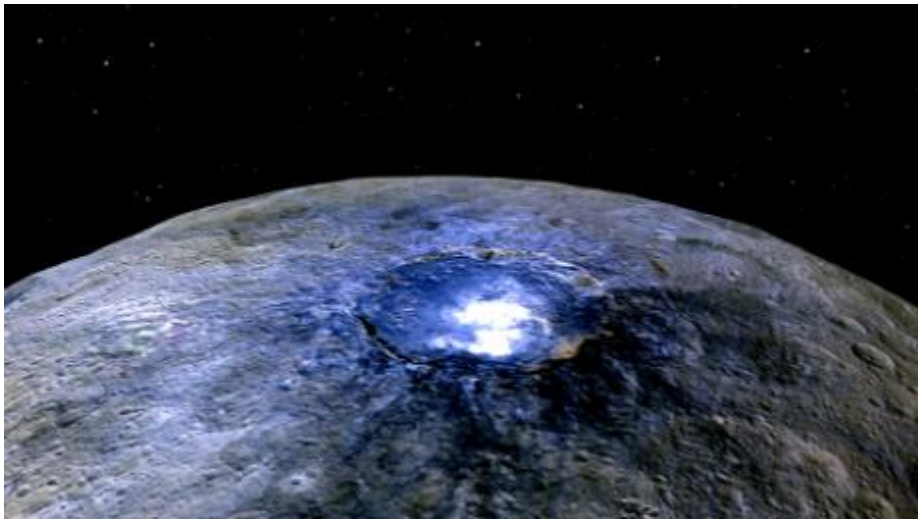
Your mission name

Your goal(s)



Completely map Ceres

Flyby Pluto with the same instruments maximizing data return

Your goal (s)

Pictures in color with thermal maps
Measurements of composition and structure of any atmosphere
Solar Wind measurements around objects
Measurements of High energy particle environment around objects

Mapping at Ceres must be complete i.e. no surface area not mapped before leaving

Initial Task

Flow down the goal into communication requirements

Detail high level operational information

- Equipment chosen on ground and space
- Different modes
- Redundancy and type of redundancy chosen
- Impact on other subsystems
- Modulation
- Coding
- Protocols
- Link Budgets
- Tracking

Present your solutions and be prepared to explain choices

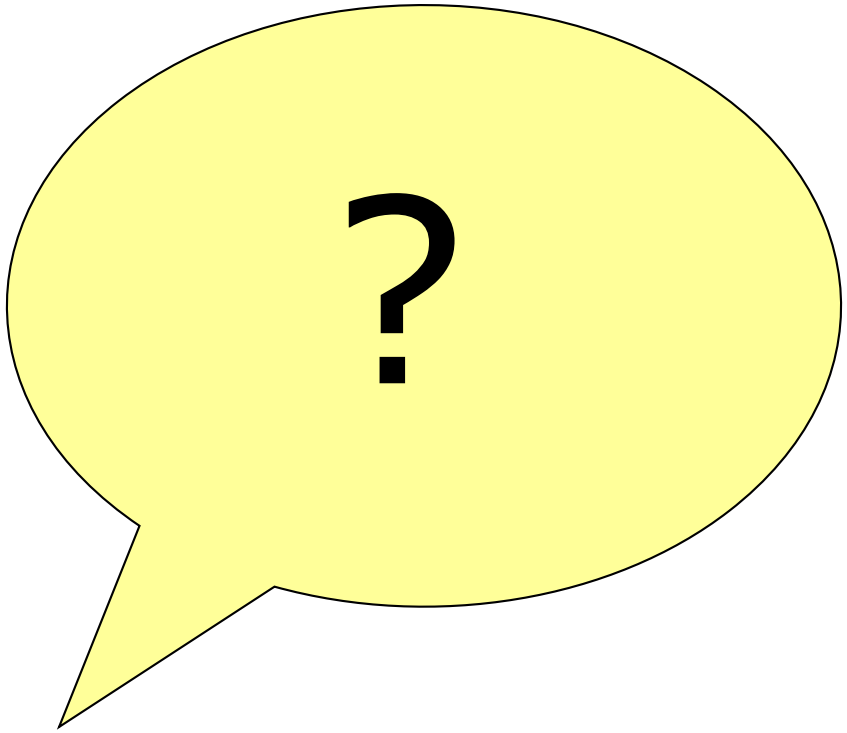
Final Task

Your team will be given an operational scenario that you will have to solve with your chosen design

You will draw up a plan to isolate the problem, recover and continue the mission

Remember this not about design, you get points for good operational thinking not building the best spacecraft.

Questions?

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